# BLACKLIGHT TRAP COLLECTING OF TACHINIDS[1,2]

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ABSTRACT: Several hundred specimens of tachinids, representing 14 species, were captured in a standard 15-watt insect survey blacklight trap. These, and other entomophage collections previously reported on, indicate that this widely-used insect survey method has additional practical value for use in Integrated Pest Management and biocontrol programs.

Recently Burbutis and Stewart (1979) reported on the collection during 1970 of parasitic Hymenoptera by a standard Ellisco®blacklight trap. The results indicated that this routine and widely-used technique could also be employed to determine species composition, relative abundance and seasonal distribution of many of these entomophagous insects. For those Hymenopteran species attracted to blacklight the method could be of considerable practical value as a monitoring tool in Integrated Pest Management programs.

In addition to the above mentioned parasites several hundred tachinids were identified among these trap collections and the information that follows pertains to these specimens. The trap was equipped with a 15-watt GE F15T8BL lamp. For additional details on methods and equipment see Burbutis and Stewart (1979).

## Results and Discussion

During the summer of 1970, 440 tachinid specimens, representing 14 species, were collected. The two most numerous species (and numbers captured) were *Admontia degeerioides* (Coquillett) (201) and *Olenchaeta kansensis* (Townsend) (102). Five species were somewhat common with collections ranging from 20 to 100 specimens each: *Eutrixa exilis* (Coquillett), *Dinera grisescens* (Fallen), *Periscepsia laevigata* (Wulp), *Athrycia cinerea* (Coquillett) and *Paradidyma affinis* Reinhard. The

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remaining 7 species were: *Paradidyma singularis* (Townsend), *Catharosia n.* sp., *Minthozeilia* sp., *Ceratomyiella conica* Townsend, *Blondelia* sp., *Elfia manca* Greene, and *Elfia* sp.

Considerable work is needed to determine whether other tachinids can be sampled by this method. Also, studies are needed to show which ecological situations are best suited for its use. Reardon et al. (1977) presented data showing that Malaise and McPhail traps will differentially trap various species of tachinids. The numbers of tachinids collected per trap, over a similar 4-month period in our blacklight trap, compares favorably with, and in most instances exceeds, the numbers collected in the Malaise and McPhail traps. If trapping of adult parasites is to be used for measuring the impact of parasites on their hosts then the blacklight trap, a tool in common use for monitoring pest species, should have further application than is generally practiced.

## REFERENCES CITED

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## 1891 — 1980

Dr. S.W. Frost, a long-time member of the American Entomological Society died January 21, 1980 at his home in State College, Pennsylvania. A graduate of Cornell University (Ph. D. 1928), Dr. Frost wrote over 200 papers and was an authority on Leaf Mining Insects. In addition, he founded the Frost Entomological Museum at Penn State University and continued to work there after his retirement from the University in 1957. Memorial contributions may be made to the Frost Entomological Museum Memorial Fund at Penn State University, University Park, PA 16802.